

**LISTING OF THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**LISTING OF CLAIMS:**

1 1. (original) An optical receiver for receiving an RZ-duobinary optical signal at a  
2 bit rate B bits per second, the receiver comprising:  
3 an optical bandpass filter responsive to the RZ-duobinary optical signal for  
4 filtering the signal within a passband of B Hz; and  
5 an optical detector for recovering data from the filtered RZ-duobinary optical  
6 signal.

1 2. (currently amended) The optical receiver as defined in claim 1 wherein a center  
2 frequency of the optical bandpass ~~filtered~~ filter is detuned from a center frequency of the  
3 RZ-duobinary optical signal by an amount less than or equal to  $\pm 0.1 \times B$ .

1 3. (original) An optical receiver for receiving an RZ-duobinary optical signal at a  
2 bit rate B bits per second, the receiver comprising:  
3 an optical bandpass filter responsive to the RZ-duobinary optical signal for  
4 filtering the signal within a passband having a bandwidth greater than or equal to  $0.7 \times B$   
5 Hz and less than or equal to  $1.3 \times B$  Hz; and  
6 an optical detector for recovering data from the filtered RZ-duobinary optical  
7 signal.

1 4. (original) A method for receiving a duobinary optical signal having a data bit rate  
2 of B bits per second, the method comprising the steps of:  
3 bandpass filtering the signal through a passband substantially equal to B Hz; and  
4 recovering data from the filtered signal, wherein the signal conforms to an RZ-  
5 duobinary signaling format.

1 5. (currently amended) The method as defined in claim 4 wherein a center frequency  
2 of the optical bandpass ~~filtered~~ filter is detuned from a center frequency of the RZ-  
3 duobinary optical signal by an amount less than or equal to  $\pm 0.1 \times B$ .

1 6. (original) A method for receiving a duobinary optical signal having a data bit rate  
2 of B bits per second, the method comprising the steps of:

3 bandpass filtering the signal through a passband having a bandwidth greater than  
4 or equal to  $0.7 \times B$  Hz and less than or equal to  $1.3 \times B$  Hz; and

5 recovering data from the filtered signal, wherein the signal conforms to an RZ-  
6 duobinary signaling format.

1 7. (original) An optical transmission system comprising:

2 an optical transmitter for generating an RZ-duobinary optical signal at a bit rate B  
3 bits per second;

4 an optical transmission medium coupled to the optical transmitter for supporting  
5 propagation the RZ-duobinary optical signal;

6 an optical bandpass filter coupled to an output of the optical transmission medium  
7 and being responsive to the RZ-duobinary optical signal for filtering the signal within a  
8 passband of B Hz; and

9 an optical detector for recovering data from the filtered RZ-duobinary optical  
10 signal.

1 8. (currently amended) The optical transmission system as defined in claim 7  
2 wherein a center frequency of the optical bandpass ~~filtered~~ filter is detuned from a center  
3 frequency of the RZ-duobinary optical signal by an amount less than or equal to  $\pm 0.1 \times B$ .

1 9. (original) An optical transmission system comprising:

2 an optical transmitter for generating an RZ-duobinary optical signal at a bit rate B  
3 bits per second;

4 an optical transmission medium coupled to the optical transmitter for supporting  
5 propagation the RZ-duobinary optical signal;

6            an optical bandpass filter coupled to an output of the optical transmission medium  
7   and being responsive to the RZ-duobinary optical signal for filtering the signal within a  
8   passband having a bandwidth greater than or equal to  $0.7 \times B$  Hz and less than or equal to  
9    $1.3 \times B$  Hz; and  
10           an optical detector for recovering data from the filtered RZ-duobinary optical  
11   signal.